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THE STATISTICAL WORK OF THE WAR TRADE BOARD.*

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As everyone knows, these are days of unexampled activity in all departments of the government at Washington. The tasks incident to the carrying on of the war have resulted in the creation of what are practically new departments, such as "The Council of National Defense," "The Shipping Board," the Fuel and Food Administrations and "The War Trade Board," and have so stimulated the activities of the regular departments that it would be hard to find the bureau or division which has not felt keenly the urge and drive of the new conditions.

All this is true of the various *statistical* bureaus of the government, as well as of those whose functions are administrative. One of the first needs to make itself felt after the outbreak of the war was the need for statistical information. In connection with the draft and the distribution of its quotas came the need for new estimates of population. The informational work of the Council of National Defense, in the shape of a preliminary inquiry into the country's industrial facilities available for war, had its beginnings months before this country actually entered the conflict. With war once declared, new demands arose for the information in the possession of the Federal Trade Commission. Each day has brought its realization of some new task to be performed and the new task has usually carried with it a new demand for statistical information upon which its performance must depend.

It goes almost without saying that the statistical information of which the various departments were already possessed took on a greatly enhanced value and the existing agencies for collecting this information felt the stimulus of this new demand. But with the creation of new departments and bureaus, and the quickened functioning of the old ones, new statistics have been called for and new statistical bureaus have been rapidly

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springing up to supply them. So far has this gone that it would probably be safe to allege that no one man in Washington knows of the existence even of all the statistical bureaus of the government, and if there is such a man today, his information is likely to be out of date tomorrow.

War means, of course, an enormous expansion of the activities of the Department of War and the Department of the Navy. The raising and sending to France of a great army requires elaborate calculations as to what are called "Requirements of the Program." How many pairs of shoes will be required for our soldiers during the year and how will these requirements be distributed over the twelve months? When millions are being dealt with, this becomes a very elaborate and difficult calculation and it must have as its foundation certain assumptions, or, preferably, statistical information, as to how fast shoes have to be replaced under the conditions of modern warfare. Similar calculations have to be made for munitions, guns, explosives, clothing, transportation, food, etc., in an infinite variety of detail. With requirements known, the next query relates to the supply available to meet them. For government purchasing on a relatively small scale it is sufficient to get in touch with manufacturers by some such process as competitive bidding, supplemented perhaps by information as to the commitments of the individual firms, but for modern warfare a different process is necessary. We must know military requirements, both our own and those of our associates in the war. We must also know the civilian requirements, and over against this total we must set stocks on hand and future productive capacity. The latter may be partly judged, of course, by past production. If total supplies are inadequate it may be necessary to give preference to government needs through the process of commandeering and in many cases it may even be necessary to erect new plants to bring *supply* into relation with the abnormal *demand* of war conditions.

But in any event, statistics of stocks and of production are highly important. Speaking generally and allowing for certain recognized exceptions, we may say that at the outbreak of the war production statistics adequate for war purposes did

not exist. The greatest activity has, therefore, been shown in getting them together. Our manufacturers have been bombarded, and are likely to continue to be bombarded, by questionnaires and by other requests for information emanating from various governmental organizations and only too frequently involving duplication of effort and an undue burden upon the people who furnish the information.

The primary function of the War Trade Board is the control of exports and imports. This simple statement, however, covers a wide range of activities and complex multiplicity of duties, calling for statistical data of many different kinds. This control of exports and imports is, of course, intended to be the sort of control which will add to our national efficiency in the conduct of the war. On the side of imports it becomes a question of what commodities produced in other countries are essential for our operations, and what are to be regarded as luxuries and for that or other reasons cut off as unessential. On the side of exports, it is important to see to it that valuable commodities shall not reach the enemy through contiguous neutrals or otherwise, that neutrals shall not receive exports from the United States which are vitally needed here, and that exports shall move to neutral countries where necessary as a means of obtaining imports in return.

In the carrying out of such a program, a great variety of statistical information must be at hand. The export and import figures of the United States, both before the war and for the three years that the war has been going on, afford, of course, absolutely essential information. But this is far from being the whole story. The normal trade and the war trade of other countries also need to be very carefully and analytically studied. This necessity is a matter of common knowledge in the case of the neutrals of Europe, because of the fear that these countries were serving as a channel through which the Allies might actually supply their enemies with the means of making war.

For many months newspaper and magazine discussion of the problem of the northern neutrals has teemed with statistics and pseudo-statistics of their trade activity. In many cases these statistics have been either absolutely incorrect, or, at the

best, extremely misleading. It was alleged, for example, in a periodical of wide circulation, that last year seventy-five million tons of pig iron were shipped from Sweden to Germany. Now the fact is that Sweden sends *iron ore* rather than *pig iron* to Germany. Her total production of iron ore has never exceeded seven or eight million tons and her exports to Germany have never gone above six million tons. The importation of this Swedish ore, which has a very high metal content, has been of enormous value to Germany, but it is a small amount relative to the alleged seventy-five million tons. The same writer states that in the first three months of 1917, Sweden imported from the United States 16,300,000 tons of pig iron. This is at the rate of nearly seventy million tons per year, which quantity actually exceeds our total production.

Such statements can only be explained on the supposition that *pounds* have been confused with *tons*, or a decimal point misplaced, or some similar gross error committed. Other statistics, correct in themselves, lend themselves to misinterpretation. For example, Swedish imports of grain from the United States increased very greatly after the war in Europe began. This has often been interpreted to mean that Germany was getting the grain. The truth was that Sweden's normal imports from Russia and Germany had been cut off and she had turned to America to make up the deficiency. In spite of our large exports of grain to Sweden in 1914 and 1915, it does not seem likely that the grain was going in any great amount to Germany. Sweden has given Germany very valuable economic assistance, but not to any extent through the import of American iron or the re-export of American grain.

American editors should guard themselves with great care against such errors and misinterpretations. Their evil is twofold; they create misapprehension in the minds of our people as to the relation of the neutrals to the war, and they stir up resentment in the countries concerned at such palpable misrepresentation.

The actual relationship of the European neutrals to the countries at war is a matter of very great import, and it has been made the subject of very careful statistical study by the War Trade Board.

These countries are asking the United States for various imports, particularly food. Exactly what we shall determine to let them have, and just what we shall get in return, are things which are yet to be announced, but they are matters which are being worked out by careful statistical investigation.

This study necessarily covers the field of production, consumption, and trade statistics of the countries concerned.

A second large field where the War Trade Board has a difficult task to perform is found in the Latin American countries. These countries need to be considered from two points of view; as sources of supplies vitally needed by the United States, and as consumers with claims upon us for our exported commodities. Certain things from Latin America we must have: prominent on the list being Chilean nitrates; Mexican oil, Cuban sugar, Brazilian manganese, and rubber and copper from various countries. Where exports are necessary as a means of getting these imports or as a means of paying for them, which is much the same thing, the problems of exports and imports are intimately related to each other. In some cases, however, the question of export allowances reduces to simple questions of need in the country concerned as against available surplus in the United States. In estimating the needs of the various countries, their production and trade statistics as well as our own statistics of exports to them and imports from them, have to be carefully studied.

The war, of course, has caused very great dislocations of trade, and these have to be taken account of as far as possible in calculating export allowances. It is not uncommon, these days, for the War Trade Board to receive urgent requests, particularly for food, from countries whose normal sources of supply have been dried up, and in some cases changes in regular trade channels have to be brought about by the control which the United States can exercise over its foreign trade. Such action is likely to be motivated by the necessity of conserving tonnage, as well as by domestic shortages in the United States. If certain countries of Latin America should be required, for example, to look to Argentina instead of to the United States for their supplies of wheat flour, the action will be grounded on considerations of both sorts, and obviously

trade statistics and a study of tonnage and distances are the necessary foundations for a sound policy. Such questions, therefore, fall within the field of inquiry of our bureau.

This rationing of various countries is fraught with great import to the countries concerned, but our right to control our own trade is undisputed, and our decisions are likely to be accepted as dictated by war necessity.

When we come, however, to the question of apportioning export licenses among our own exporters, we have a problem of another sort. Here, too, the spirit of toleration at present exists. Export control is a new task, due to the war. It will take time to work out an equitable system. There is a general realization of this, but there is also a demand that some equitable system shall be worked out as speedily as possible. To be equitable, such a system should probably have a statistical basis of some sort. Plans are now being worked out for the establishment of a statistical control over the apportionment of exports among consignors, but it is a problem which will require a considerable amount of time for its complete solution. Meanwhile, the task is being performed as best it can by methods which will be discarded later on as mere make-shifts.

I have said already that those parts of our government which are charged with the actual making of war are interested in requirements, stocks on hand, and statistics of production. The War Trade Board is interested in these same things from another point of view. It is very much interested indeed in the question of exportable surplus. Now exportable surplus cannot be expressed in terms of a fixed formula. I can show this by an example. The Bureau of Research carefully collected production, export and import figures for a certain cereal, the export of which last year was unusually large, and we reached the conclusion that this year's crop was large enough so that we could export as much as last year and still have more left for home consumption than in recent years, and this without allowing for any imports whatever. Imports in recent years have been large. We arrived, in other words, at a figure which we called "the exportable surplus." We then allotted a certain part of this amount to Latin America

and determined the proportion which might go to a particular country. When this figure was presented to the Food Administration for approval, the verdict was rendered that the said country could have none of the said cereal. At first glance this might seem like the abandonment of a statistical basis for the calculation of export allowances. As a matter of fact it was not. Other crops, notably wheat, are short, and the action of the Food Administration meant simply that the other cereal must be more largely consumed than formerly, both by ourselves and by our European associates in the war, as a means of compensation for the shortage of wheat. It was a particular method of calculating the surplus available for export to Latin America, based upon the principle that the exportable surplus of one commodity is a partial function of the supply and demand statistics of another, and, it needs to be added that the policies of the Food Administration are based upon very full statistical information gathered by their own statistical bureau.

It is one of our tasks then to ascertain this rather elusive thing which is called "exportable surplus" and then to apportion the exportable surplus among the countries to which it is to go, and although exportable surplus does not lend itself to any one rigorous definition, yet stocks on hand and production statistics are of the essence of its calculation. Hence the interest of the War Trade Board in these statistics, an interest which overlaps and runs along with that of the War and Navy Departments, the Council of National Defense, and other departments.

The point that I am leading up to is this: the importance of coöperation between the various departments in the collection of statistics of stocks and of production.

The committees on Federal Statistics of the Economic Association, the Sociological Society and the Statistical Association, are, as you know, interested in the general problem of coördination and coöperation in the statistical work of the various departments. Particular aspects of this problem present themselves in the ordinary course of our work, and in a piecemeal fashion beginnings are being made towards its solution. For example; the Geological Survey had before the

war established itself in the field of mineral statistics. Plans have recently been made between the Survey, Doctor Ayres' office (the Division of Statistics of the Council of National Defense), and our own, for the coöperative collection of statistics of non-ferrous metals. Perhaps I should say that Doctor Ayres' office initiated the plan and that we were very kindly included in the arrangement.

A great deal more work of this coöperative sort needs to be done. If there were in existence today a general coördinating statistical commission, such as is contemplated by the committees on Federal Statistics of the three associations, it would be of the very greatest service in the winning of the war. Without such a commission, coöperation, coördination, and the avoidance of duplication in war statistical work are, under the drive and stress of war conditions, very difficult matters to work out.